

Prof. ALİ DEMİR

Personal Information

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Education Information

Doctorate, Kocaeli University, Fen Bilimleri Enstitüsü, Matematik Anabilim Dalı, Turkey 2004 - 2007

Postgraduate, University of Illinois at Urbana-Champaign, Matematik, Matematik, United States Of America 1995 - 1997

Undergraduate, Istanbul Technical University, Fen-Edebiyat, Matematik Mühendisliği, Turkey 1989 - 1993

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Lyapunov-Schmidt indirgeme metodu ile elde edilen indirgenmiş bifurkasyon denklemi ve analizi, Kocaeli University, Fen Bilimleri Enstitüsü, 2007

Research Areas

Natural Sciences

Academic Titles / Tasks

Professor, Kocaeli University, Fen Edebiyat Fakültesi, Matematik, 2021 - Continues

Associate Professor, Kocaeli University, Fen Edebiyat Fakültesi, Matematik, 2014 - 2021

Assistant Professor, Kocaeli University, Fen-Edebiyat Fakültesi, Matematik Bölümü, 2007 - 2014

Research Assistant, Kocaeli University, Fen-Edebiyat Fakültesi, Matematik Bölümü, 2003 - 2007

Academic and Administrative Experience

Head of Department, Kocaeli University, 2009 - Continues

Vice Dean, Kocaeli University, Fen Edebiyat Fakültesi, Matematik, 2019 - 2022

Courses

Probability, Undergraduate, 2022 - 2023
Analysis II, Undergraduate, 2021 - 2022
Fonksiyonel Analiz, Undergraduate, 2021 - 2022
İstatistik ve Olasılık, Undergraduate, 2020 - 2021
Reel Analiz, Undergraduate, 2020 - 2021
Analiz I, Undergraduate, 2020 - 2021
Lineer Cebir, Undergraduate, 2020 - 2021
Mühendislik Matematiği I, Doctorate, 2020 - 2021

Advising Theses

Kodal Sevindir H., DEMİR A., Uzay-zaman kesirli diferansiyel denklemlerinin çözümlerinin analizi, Doctorate, S.ÇETİNKAYA(Student), 2023
Demir A., Kesirli diferansiyel denklemler, Postgraduate, M.AKYOL(Student), 2022
Demir A., Kesirli mertebeden difüzyon denklemi için başlangıç sınır değer probleminin çözümü, Postgraduate, G.L.ÜLECİ(Student), 2019
Demir A., Küçük gecikme içeren lineer kesirli diferansiyel denklemlerin çözümü, Postgraduate, K.KARAPINAR(Student), 2019
Demir A., Durum değişkenine bağlı gecikme terimi içeren diferansiyel denklemlerin analizi, Doctorate, S.ERMAN(Student), 2016
Demir A., Sınır sistemi modelinin analizi, Doctorate, B.ÖZGÜR(Student), 2016
Demir A., Adomian ayrıştırma metodu ile ısı transfer denklemi için ters problem analizi, Postgraduate, E.KORKMAZ(Student), 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A NOVEL ANALYTICAL METHOD FOR TIME FRACTIONAL CONVECTION-DIFFUSION EQUATION THROUGH CLIQUE POLYNOMIALS OF THE COCKTAIL PARTY GRAPH**
BAYRAK M. A., DEMİR A., Büyük A.
Journal of Applied Analysis and Computation, vol.15, no.1, pp.564-573, 2025 (SCI-Expanded)
- II. **On the inverse problem of time dependent coefficient in a time fractional diffusion problem by sinc wavelet collocation method**
BAYRAK M. A., DEMİR A.
PHYSICA SCRIPTA, vol.99, no.10, 2024 (SCI-Expanded)
- III. **On the Inverse Problem of Time-Dependent Coefficient in a Time Fractional Diffusion Problem by Newly Defined Monic Laquerre Wavelets**
Bayrak M. A., Demir A.
JOURNAL OF COMPUTATIONAL AND NONLINEAR DYNAMICS, vol.18, no.11, 2023 (SCI-Expanded)
- IV. **A novel approach for the solution of fractional diffusion problems with conformable derivative**
Bayrak M. A., Demir A., Ozbilge E.
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.39, no.3, pp.1870-1887, 2023 (SCI-Expanded)
- V. **Solving inverse non-linear fractional differential equations by generalized Chelyshkov wavelets**
Erman S., DEMİR A., Ozbilge E.
Alexandria Engineering Journal, vol.66, pp.947-956, 2023 (SCI-Expanded)
- VI. **On the solution of time fractional initial value problem by a new method with ARA transform**
ÇETİNKAYA S., DEMİR A.
Journal of Intelligent and Fuzzy Systems, vol.44, no.2, pp.2693-2701, 2023 (SCI-Expanded)
- VII. **On the numerical solution of conformable fractional diffusion problem with small delay**

- Bayrak M. A., Demir A., Ozbilge E.
 NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.38, no.2, pp.177-189, 2022 (SCI-Expanded)
- VIII. **An Improved Version of Residual Power Series Method for Space-Time Fractional Problems**
 Bayrak M. A., Demir A., Ozbilge E.
 ADVANCES IN MATHEMATICAL PHYSICS, vol.2022, 2022 (SCI-Expanded)
- IX. **On Fractional Newton-Type Method for Nonlinear Problems**
 Bayrak M. A., Demir A., Ozbilge E.
 Journal of Mathematics, vol.2022, 2022 (SCI-Expanded)
- X. **On Effects of a New Method for Fractional Initial Value Problems**
 Kodal Sevindir H., Çetinkaya S., Demir A.
 ADVANCES IN MATHEMATICAL PHYSICS, vol.2021, pp.1-10, 2021 (SCI-Expanded)
- XI. **On the Solution of Bratu's Initial Value Problem in the Liouville-Caputo Sense by ARA Transform and Decomposition Method**
 Çetinkaya S., Demir A.
 Comptes Rendus De L Academie Bulgare Des Sciences, vol.74, no.12, pp.1729-1738, 2021 (SCI-Expanded)
- XII. **Solving Time Fractional Schrodinger Equation in the Sense of Local Fractional Derivative**
 Bayrak M. A., Demir A.
 JOURNAL OF COMPUTATIONAL AND NONLINEAR DYNAMICS, vol.16, no.8, 2021 (SCI-Expanded)
- XIII. **Solution of Space-Time-Fractional Problem by Shehu Variational Iteration Method**
 Çetinkaya S., Demir A., Kodal Sevindir H.
 ADVANCES IN MATHEMATICAL PHYSICS, vol.2021, 2021 (SCI-Expanded)
- XIV. **On solution of fractional partial differential equation by the weighted fractional operator**
 Bayrak M. A., Demir A., Ozbilge E.
 Alexandria Engineering Journal, vol.59, pp.4805-4819, 2020 (SCI-Expanded)
- XV. **Numerical solution of fractional diffusion equation by Chebyshev collocation method and residual power series method**
 Bayrak M. A., Demir A., Ozbilge E.
 Alexandria Engineering Journal, vol.59, pp.4709-4717, 2020 (SCI-Expanded)
- XVI. **On the construction and stability analysis of the solution of linear fractional differential equation**
 Erman S., Demir A.
 APPLIED MATHEMATICS AND COMPUTATION, vol.386, 2020 (SCI-Expanded)
- XVII. **New approaches for the solution of space-time fractional Schrodinger equation**
 Demir A., Bayrak M. A., Ozbilge E.
 ADVANCES IN DIFFERENCE EQUATIONS, vol.2020, no.1, 2020 (SCI-Expanded)
- XVIII. **A New Approach for the Approximate Analytical Solution of Space-Time Fractional Differential Equations by the Homotopy Analysis Method**
 Demir A., Bayrak M. A., Özbilge Kahveci E.
 ADVANCES IN MATHEMATICAL PHYSICS, vol.2019, pp.1-12, 2019 (SCI-Expanded)
- XIX. **A new approach for space-time fractional partial differential equations by residual power series method**
 Bayrak M. A., Demir A.
 APPLIED MATHEMATICS AND COMPUTATION, vol.336, pp.215-230, 2018 (SCI-Expanded)
- XX. **The stability analysis of a system with two delays**
 Erman S., Sevindir H., Demir A.
 BOUNDARY VALUE PROBLEMS, 2018 (SCI-Expanded)
- XXI. **Distinguishability of a source function in a time fractional inhomogeneous parabolic equation with Robin boundary condition**
 Ozbilge E., DEMİR A.
 HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.47, no.6, pp.1503-1511, 2018 (SCI-Expanded)
- XXII. **A note on the stability of a neural field model**
 Ozgur B., Demir A., Erman S.

- HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.47, pp.1495-1502, 2018 (SCI-Expanded)
- XXIII. **An Approximate Solution of the Time-Fractional Fisher Equation with Small Delay by Residual Power Series Method**
Demir A., Bayrak M. A., Özbilge E.
MATHEMATICAL PROBLEMS IN ENGINEERING, vol.2018, 2018 (SCI-Expanded)
- XXIV. **The Solution of Initial Boundary Value Problem with Time and Space-Fractional Diffusion Equation via a Novel Inner Product**
Sevindir H., DEMİR A.
ADVANCES IN MATHEMATICAL PHYSICS, vol.2018, 2018 (SCI-Expanded)
- XXV. **ON THE STABILITY OF TWO NEURON POPULATIONS INTERACTING WITH EACH OTHER**
Ozgur B., DEMİR A.
ROCKY MOUNTAIN JOURNAL OF MATHEMATICS, vol.48, no.7, pp.2337-2346, 2018 (SCI-Expanded)
- XXVI. **An analysis on the stability of a state dependent delay differential equation**
Erman S., DEMİR A.
OPEN MATHEMATICS, vol.14, pp.425-435, 2016 (SCI-Expanded)
- XXVII. **IDENTIFICATION OF UNKNOWN COEFFICIENT IN TIME FRACTIONAL PARABOLIC EQUATION WITH MIXED BOUNDARY CONDITIONS VIA SEMIGROUP APPROACH**
Ozbilge E., Demir A.
DYNAMIC SYSTEMS AND APPLICATIONS, vol.24, no.3, pp.341-348, 2015 (SCI-Expanded)
- XXVIII. **Numerical solution and distinguishability in time fractional parabolic equation**
DEMİR A., Kanca F., Ozbilge E.
BOUNDARY VALUE PROBLEMS, 2015 (SCI-Expanded)
- XXIX. **Inverse problem for a time-fractional parabolic equation**
Ozbilge E., DEMİR A.
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2015 (SCI-Expanded)
- XXX. **Analysis of the inverse problem in a time fractional parabolic equation with mixed boundary conditions**
Ozbilge E., DEMİR A.
BOUNDARY VALUE PROBLEMS, 2014 (SCI-Expanded)
- XXXI. **Identification of the unknown diffusion coefficient in a linear parabolic equation via semigroup approach**
Ozbilge E., DEMİR A.
ADVANCES IN DIFFERENCE EQUATIONS, 2014 (SCI-Expanded)
- XXXII. **Analysis of fractional partial differential equations by Taylor series expansion**
DEMİR A., Erman S., Ozgur B., Korkmaz E.
BOUNDARY VALUE PROBLEMS, 2013 (SCI-Expanded)
- XXXIII. **Analysis of the new homotopy perturbation method for linear and nonlinear problems**
Demir A., Erman S., Ozgur B., Korkmaz E.
BOUNDARY VALUE PROBLEMS, 2013 (SCI-Expanded)
- XXXIV. **Semigroup approach for identification of the unknown diffusion coefficient in a linear parabolic equation with mixed output data**
Ozbilge E., DEMİR A.
BOUNDARY VALUE PROBLEMS, 2013 (SCI-Expanded)
- XXXV. **Identification of the unknown coefficient in a quasi-linear parabolic equation by a semigroup approach**
ÖZBİLGE E., DEMİR A.
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2013 (SCI-Expanded)
- XXXVI. **Identification of the unknown boundary condition in a linear parabolic equation**
DEMİR A., ÖZBİLGE E.
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2013 (SCI-Expanded)
- XXXVII. **On the Inverse Problem of the Fractional Heat-Like Partial Differential Equations: Determination of**

the Source Function

ÖZKUM G., DEMİR A., Erman S., Korkmaz E., Ozgur B.

ADVANCES IN MATHEMATICAL PHYSICS, vol.2013, 2013 (SCI-Expanded)

- XXXVIII. **Stability for determining the principal coefficient of parabolic equation**
Demir A., Erdem A.
APPLIED MATHEMATICS AND COMPUTATION, vol.219, no.8, pp.3826-3830, 2012 (SCI-Expanded)
- XXXIX. **Analysis of a semigroup approach in the inverse problem of identifying an unknown parameters**
ÖZBİLGE E., DEMİR A.
APPLIED MATHEMATICS AND COMPUTATION, vol.218, no.3, pp.965-969, 2011 (SCI-Expanded)
- XL. **Analysis for the identification of an unknown diffusion coefficient via semigroup approach**
DEMİR A., ÖZBİLGE E.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.32, no.18, pp.2405-2415, 2009 (SCI-Expanded)
- XLI. **Analysis of a semigroup approach in the inverse problem of identifying an unknown coefficient**
DEMİR A., ÖZBİLGE E.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.31, no.14, pp.1635-1645, 2008 (SCI-Expanded)
- XLII. **Parametrized fibonacci search method with k-Lucas numbers**
DEMİR A., ÖMÜR N., ULUTAS Y. T.
APPLIED MATHEMATICS AND COMPUTATION, vol.198, no.1, pp.355-360, 2008 (SCI-Expanded)
- XLIII. **Trisection method by k-Lucas numbers**
Demir A.
APPLIED MATHEMATICS AND COMPUTATION, vol.198, no.1, pp.339-345, 2008 (SCI-Expanded)
- XLIV. **Identification of the unknown diffusion coefficient in a linear parabolic equation by the semigroup approach**
DEMİR A., Hasanov A.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.340, no.1, pp.5-15, 2008 (SCI-Expanded)
- XLV. **Optimization by k-Lucas numbers**
DEMİR A., ÖMÜR N., ULUTAS Y. T.
APPLIED MATHEMATICS AND COMPUTATION, vol.197, no.1, pp.366-371, 2008 (SCI-Expanded)
- XLVI. **Monotonicity of input-output mappings in inverse coefficient and source problems for parabolic equations**
HASANOV A., Demir A., Erdem A.
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, vol.335, no.2, pp.1434-1451, 2007 (SCI-Expanded)
- XLVII. **Semigroup approach for identification of the unknown diffusion coefficient in a quasi-linear parabolic equation**
Demir A., Ozbilge E.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.30, no.11, pp.1283-1294, 2007 (SCI-Expanded)
- XLVIII. **Delay equations with fluctuating delay related to the regenerative chatter**
Demir A., Hasanov A., Namachchivaya N.
INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS, vol.41, no.3, pp.464-474, 2006 (SCI-Expanded)
- XLIX. **Delay equations with fluctuating delay related to the regenerative chatter II analysis of reduced bifurcation equation**
DEMİR A., HASANOĞLU A.
Applicable Analysis, vol.84, no.6, pp.631-647, 2005 (SCI-Expanded)
- L. **Delay equations with fluctuating delay related to the regenerative chatter I reduced bifurcation equation**
DEMİR A., HASANOĞLU A.
Applicable Analysis, vol.84, no.5, pp.437-449, 2005 (SCI-Expanded)

Articles Published in Other Journals

- I. **The stability analysis of a neural field model with small delay**
Ozgur B., DEMİR A.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, no.3, pp.900-904, 2024 (ESCI)
- II. **On Applications Shehu Variational Iteration Method to Time Fractional Initial Boundary Value Problems**
ÇETİNKAYA S., DEMİR A.
Konuralp Journal of Mathematics, vol.12, no.1, pp.13-20, 2024 (Scopus)
- III. **On a Fractional Operator of Adjoint Hybrid Fractional Derivative Operator**
BAYRAK M. A., DEMİR A.
Annals of the University of Craiova, Mathematics and Computer Science Series, vol.51, no.1, pp.21-39, 2024 (ESCI)
- IV. **Inverse Coefficient Problem by Fractional Taylor Series Method**
Bayrak M. A., Demir A.
ANNALS OF THE UNIVERSITY OF CRAIOVA, MATHEMATICS AND COMPUTER SCIENCE SERIES, vol.50, no.2, pp.292-301, 2023 (ESCI)
- V. **Diffusion Equation Including Local Fractional Derivative and Dirichlet Boundary Conditions**
Çetinkaya S., Demir A.
Konuralp Journal of Mathematics, vol.11, no.2, pp.148-154, 2023 (Peer-Reviewed Journal)
- VI. **On new aspects of Chebyshev polynomials for space-time fractional diffusion process**
Demir A., Bayrak M. A., Bulut A., Ozbilge E., Cetinkaya S.
APPLIED MATHEMATICS AND NONLINEAR SCIENCES, vol.8, no.2, pp.1051-1062, 2023 (ESCI)
- VII. **Space-Time Fractional Heat Equation's Solutions with Fractional Inner Product**
Çetinkaya S., Demir A.
Turkic World Mathematical Society Journal of Applied and Engineering Mathematics, vol.13, no.2, pp.462-469, 2023 (ESCI)
- VIII. **On the Solution of Mathematical Model Including Space-Time Fractional Diffusion Equation in Conformable Derivative, Via Weighted Inner Product**
ÇETİNKAYA S., DEMİR A.
Kocaeli Journal of Science and Engineering, vol.6, no.1, pp.1-5, 2023 (Peer-Reviewed Journal)
- IX. **Identification of a time-dependent diffusivity coefficient in heat-like space-time fractional differential equations**
Bayrak M. A., Demir A.
Journal of Amasya University the Institute of Sciences and Technology, vol.3, no.2, pp.11-20, 2022 (Peer-Reviewed Journal)
- X. **On the challenge of identifying space dependent coefficient in space-time fractional diffusion equations by fractional scaling transformations method**
Bayrak M. A., Demir A.
TURKISH JOURNAL OF SCIENCE, vol.7, no.2, pp.132-145, 2022 (Peer-Reviewed Journal)
- XI. **Solutions of Fuzzy Time Fractional Heat Equation**
ÇETİNKAYA S., DEMİR A.
Journal of Mathematical Extension, vol.22, no.6, 2022 (ESCI)
- XII. **NUMERICAL SOLUTIONS OF NONLINEAR SYSTEM OF FRACTIONAL DIFFERENTIAL EQUATIONS VIA A NEW INTEGRAL TRANSFORM**
Demir A., Çetinkaya S.
TWMS JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.12, no.3, pp.1061-1068, 2022 (Peer-Reviewed Journal)
- XIII. **ON THE INTEGRAL TRANSFORM SHEHU FOR NONLINEAR FRACTIONAL PROBLEMS**
ÇETİNKAYA S., DEMİR A.
MELDAR : REVISTA INTERNACIONAL DE ESTUDIOS SEFARDÍES, 2022 (Peer-Reviewed Journal)
- XIV. **Time fractional problem via inner product including weighted function**
ÇETİNKAYA S., DEMİR A.

Journal of Balıkesir University Institute of Science and Technology, vol.24, no.1, pp.91-98, 2022 (Peer-Reviewed Journal)

- XV. **SOLUTIONS FOR THE FRACTIONAL MATHEMATICAL MODELS OF DIFFUSION PROCESS**
Çetinkaya S., Bayrak M. A., Demir A., Baleanu D.
FACTA UNIVERSITATIS-SERIES MATHEMATICS AND INFORMATICS, vol.37, no.1, pp.103-120, 2022 (ESCI)
- XVI. **Time fractional problem via inner product including weighted function**
ÇETİNKAYA S., DEMİR A.
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.24, 2022 (Peer-Reviewed Journal)
- XVII. **Effects of the ARA transform method for time fractional problems**
ÇETİNKAYA S., DEMİR A.
Centre for Evaluation in Education and Science (CEON/CEES), vol.26, 2022 (Peer-Reviewed Journal)
- XVIII. **A New Iterative Algorithm for the Time-Fractional Fisher Equation Including Small Delay**
Demir A., Bayrak M. A.
Konuralp journal of mathematics, vol.10, no.1, pp.1-10, 2022 (Peer-Reviewed Journal)
- XIX. **DIFFUSION EQUATION INCLUDING A LOCAL FRACTIONAL DERIVATIVE AND WEIGHTED INNER PRODUCT**
ÇETİNKAYA S., DEMİR A.
JOURNAL OF APPLIED MATHEMATICS AND COMPUTATIONAL MECHANICS, vol.21, no.1, pp.19-27, 2022 (ESCI)
- XX. **DETERMINATION OF TIME DEPENDENT DIFFUSION COEFFICIENT IN TIME FRACTIONAL DIFFUSION EQUATIONS BY FRACTIONAL SCALING TRANSFORMATIONS METHOD**
Bayrak M. A., Demir A.
BULLETIN OF THE INSTITUTE OF MATHEMATICS ACADEMIA SINICA NEW SERIES, vol.16, no.4, pp.303-319, 2021 (ESCI)
- XXI. **Analysis of fractional Fokker-Planck equation with Caputo and Caputo-Fabrizio derivatives**
ÇETİNKAYA S., DEMİR A., BALEANU D.
Annals of the University of Craiova, Mathematics and Computer Science Series, vol.48, no.2, pp.334-348, 2021 (ESCI)
- XXII. **A NEW APPROACH FOR THE APPROXIMATE SOLUTION OF FRACTIONAL INTEGRO-DIFFERENTIAL EQUATIONS**
Bayrak M. A., Demir A.
BULLETIN OF THE INSTITUTE OF MATHEMATICS ACADEMIA SINICA NEW SERIES, vol.16, no.3, pp.193-215, 2021 (ESCI)
- XXIII. **Sequential space fractional diffusion equation's solutions via new inner product**
ÇETİNKAYA S., DEMİR A.
ASIAN-EUROPEAN JOURNAL OF MATHEMATICS, vol.14, no.7, 2021 (ESCI)
- XXIV. **Sequential time space fractional diffusion equation including nonhomogenous initial boundary conditions**
ÇETİNKAYA S., DEMİR A.
TBILISI MATHEMATICAL JOURNAL, vol.14, no.2, pp.83-91, 2021 (ESCI)
- XXV. **ON SOLUTIONS OF HYBRID TIME FRACTIONAL HEAT PROBLEM**
ÇETİNKAYA S., DEMİR A.
BULLETIN OF THE INSTITUTE OF MATHEMATICS ACADEMIA SINICA NEW SERIES, vol.16, no.1, pp.49-62, 2021 (ESCI)
- XXVI. **SOLUTION OF HYBRID TIME FRACTIONAL DIFFUSION PROBLEM VIA WEIGHTED INNER PRODUCT**
ÇETİNKAYA S., DEMİR A.
JOURNAL OF APPLIED MATHEMATICS AND COMPUTATIONAL MECHANICS, vol.20, no.2, pp.17-27, 2021 (ESCI)
- XXVII. **NUMERICAL SOLUTIONS OF NONLINEAR FRACTIONAL DIFFERENTIAL EQUATIONS VIA LAPLACE TRANSFORM**
Cetinkaya S., Demir A.
FACTA UNIVERSITATIS-SERIES MATHEMATICS AND INFORMATICS, vol.36, no.2, pp.249-257, 2021 (ESCI)
- XXVIII. **Hybrid Fractional Diffusion Problem with Dirichlet Boundary Conditions**

- ÇETİNKAYA S., DEMİR A.
JOURNAL OF MATHEMATICAL EXTENSION, vol.15, no.26, pp.1-15, 2021 (ESCI)
- XXIX. **DIFFUSION EQUATION INCLUDING LOCAL FRACTIONAL DERIVATIVE AND NON-HOMOGENOUS DIRICHLET BOUNDARY CONDITIONS**
ÇETİNKAYA S., DEMİR A.
Journal of Scientific Reports-A, no.45, pp.101-110, 2020 (Peer-Reviewed Journal)
- XXX. **DIFFUSION EQUATION INCLUDING LOCAL FRACTIONAL DERIVATIVE AND NON-HOMOGENOUS DIRICHLET BOUNDARY CONDITIONS**
Çetinkaya S., Demir A.
Journal of Scientific Reports-A , no.45, pp.101-110, 2020 (Peer-Reviewed Journal)
- XXXI. **Diffusion Equation Including Local Fractional Derivative and Non-Homogenous Dirichlet Boundary Conditions**
Çetinkaya S., Demir A.
Journal of Scientific Reports-A, vol.45, pp.101-110, 2020 (Peer-Reviewed Journal)
- XXXII. **Time Fractional Equation Including Non-homogenous Dirichlet Boundary Conditions**
Çetinkaya S., Demir A.
Sakarya University Journal of Science, vol.6, no.24, pp.1185-1190, 2020 (Peer-Reviewed Journal)
- XXXIII. **Time Fractional Diffusion Equation with Periodic Boundary Conditions**
Çetinkaya S., Demir A.
Konuralp Journal of Mathematics, vol.8, no.2, pp.337-342, 2020 (Peer-Reviewed Journal)
- XXXIV. **The Analytic Solution of Initial Periodic Boundary Value Problem Including Sequential Time Fractional Diffusion Equation**
Çetinkaya S., Demir A., Kodal Sevindir H.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.11, pp.173-179, 2020 (ESCI)
- XXXV. **ON THE EXISTENCE AND UNIQUENESS OF SOLUTIONS FOR A FIRST AND SECOND-ORDER DISCRETE BOUNDARY VALUE PROBLEM**
Coskun A., Demir A.
JOURNAL OF MATHEMATICAL ANALYSIS, vol.11, no.2, pp.86-101, 2020 (ESCI)
- XXXVI. **Equation Including Local Fractional Derivative and Neumann Boundary Conditions**
ÇETİNKAYA S., DEMİR A.
Kocaeli Journal of Science and Engineering, vol.3, no.2, 2020 (Peer-Reviewed Journal)
- XXXVII. **The Analytic Solution of Sequential Space-Time Fractional Diffusion Equation Including Periodic Boundary Conditions**
Çetinkaya S., Demir A., Kodal Sevindir H.
JOURNAL OF MATHEMATICAL ANALYSIS, vol.11, no.1, pp.17-28, 2020 (ESCI)
- XXXVIII. **THE ANALYTIC SOLUTION OF INITIAL BOUNDARY VALUE PROBLEM INCLUDING TIME FRACTIONAL DIFFUSION EQUATION**
Çetinkaya S., Demir A., Kodal Sevindir H.
FACTA UNIVERSITATIS-SERIES MATHEMATICS AND INFORMATICS, vol.35, no.1, pp.243-252, 2020 (ESCI)
- XXXIX. **On the Solutions of Linear Fractional Differential Equations of Order $2q$ Including Small Delay Where $0 < q < 1$**
Demir A., Karapinar K., Erman S.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.11, pp.31-40, 2020 (ESCI)
- XL. **On time-fractional Lotka-Volterra diffusion model**
Demir A., Bayrak M. A.
New Trends in Mathematical Science, vol.3, no.7, pp.178-285, 2019 (Peer-Reviewed Journal)
- XLI. **The Analytic Solution of Time-Space Fractional Diffusion Equation via New Inner Product with Weighted Function**
Çetinkaya S., Demir A.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.10, pp.865-873, 2019 (ESCI)
- XLII. **A New Approach for the Solution of Space-Time Fractional Order Heat-Like Partial**

Differential Equations by Residual Power Series Method

Demir A., Bayrak M. A.

COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.10, no.3, pp.585-597, 2019 (ESCI)

- XLIII. **An Inverse Source Problem in Time-Space Fractional Differential Equations**
ÖZBİLGE KAHVECİ E., DEMİR A.
Applied Mathematics & Information Sciences, vol.12, no.3, pp.587-591, 2018 (Scopus)
- XLIV. **Inverse Problem for Determination of An Unknown Coefficient in the Time Fractional Diffusion Equation**
Demir A., Bayrak M. A.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.9, no.2, pp.229-237, 2018 (ESCI)
- XLV. **Determination of an unknown spacewise dependent coefficient for the time-fractional heat equation**
Bayrak M. A., Demir A.
European International Journal of Science and Technology, vol.6, no.6, 2017 (Peer-Reviewed Journal)
- XLVI. **A new approach for determination of boundary function for diffusion equation by fourier method**
ERMAN S., ÖZGÜR B., DEMİR A.
New Trends in Mathematical Sciences, 2017 (Peer-Reviewed Journal)
- XLVII. **Some Stability Charts of A Neural Field Model of Two Neural Populations**
Ozgur B., DEMİR A.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.7, no.2, pp.159-166, 2016 (ESCI)
- XLVIII. **Determination of the Unknown Source Function in Time Fractional Parabolic Equation with Dirichlet Boundary Conditions**
ÖZBİLGE KAHVECİ E., DEMİR A., KANCA F., Ozbilge E.
Applied Mathematics & Information Sciences, vol.10, no.1, pp.283-289, 2016 (Scopus)
- XLIX. **A Novel Approach for the Stability Analysis of State Dependent Differential Equation**
Erman S., DEMİR A.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.7, no.2, pp.105-113, 2016 (ESCI)

Books & Book Chapters

I. Elemanter Fonksiyonlar

Demir A.

in: Kompleks Analiz ve Uygulamaları, A. DERNEK, Editor, Nobel Yayın Dağıtım, Ankara, pp.157-211, 2017

Refereed Congress / Symposium Publications in Proceedings

- I. **Novel Wavelet Approach for Solving Time or Space Fractional Klein-Gordon Problems**
Bayrak M. A., Demir A., Erman S., Büyük A.
ICOLES 2023, Antalya, Turkey, 2 - 05 November 2023
- II. **On the Solution of Time Fractional Diffusion Equations with Periodic Boundary Conditions in the Sense of Local Fractional Derivatives**
Çetinkaya S., Demir A.
AICNHS 3rd International Conference on New Horizons in Science, Casablanca, Morocco, 1 - 03 September 2023, pp.11-20
- III. **On the Sequential Space Fractional Heat-Like Problems**
Çetinkaya S., Demir A.
AICNHS 3rd International Conference on New Horizons in Science, Casablanca, Morocco, 1 - 03 September 2023, pp.1-10
- IV. **On the Solution of Diffusion Equation in the Sense of Proportional Fractional Derivative**
Çetinkaya S., Demir A.

EU 2nd International Conference on Health, Engineering and Applied Sciences, Belgrade, Serbia, 4 - 06 August 2023, pp.150-162

V. **Augmented Shehu Transformations for Space-Time Fractional Diffusion Process**

Çetinkaya S., Demir A.

EU 2nd International Conference on Health, Engineering and Applied Sciences, Belgrade, Serbia, 4 - 06 August 2023, pp.126-149

VI. **A new approach to differential equations using clique collocation method**

Büyük A., BAYRAK M. A., DEMİR A.

5th International conference on life and engineering sciences, Alanya, Turkey, 19 May 2022

VII. **On the Sequential Fractional Initial Boundary Problem**

Çetinkaya S., Demir A.

International Dumlupınar Science and Mathematics Congress, Kütahya, Turkey, 5 - 07 September 2022, pp.499-510

VIII. **On the effectiveness of improved adjoint hybrid fractional derivative operator**

ERMAN S., BAYRAK M. A., DEMİR A.

Mediterranean International Conference on Research in Applied Sciences, Antalya, Turkey, 12 April 2022

IX. **Comparison of finite difference method and residual power series method for time fractional diffusion problems**

ERMAN S., BAYRAK M. A., DEMİR A.

International ONLINE conference on mathematical advances and applications (ICOMAA-2022), İstanbul, Turkey, 11 April 2022

X. **On The Solution of Mathematical Problem Including Sequential Time Fractional Wave Equation**

AKYOL M., DEMİR A., ÇETİNKAYA S.

4th International E-Conference on Mathematical Advances and Applications (ICOMAA-2021), İstanbul, Turkey, 26 May 2021, vol.4, pp.91-94

XI. **DETECTION OF PREMATURE VENTRICULAR CONTRACTION BY USING ADABOOST ALGORITHM AND FRACTIONAL DERIVATIVE**

ÇETİNKAYA S., DEMİR A.

International Marmara Sciences Congress (Autumn) 2019, Kocaeli, Turkey, 1 - 03 November 2019, pp.180-183

XII. **THE ANALYTIC SOLUTION OF INITIAL BOUNDARY VALUE PROBLEM INCLUDING TIME-FRACTIONAL DIFFUSION EQUATION**

ÇETİNKAYA S., DEMİR A.

International Marmara Sciences Congress (Autumn) 2019, Kocaeli, Turkey, 1 - 03 November 2019, pp.174-179

XIII. **Performance Evaluation of Adaboost and Naive Bayes Algorithms for the Detection of Heart Attack (Özet)**

Çetinkaya S., Demir A., Kodal Sevindir H.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.59

XIV. **Detection of Parkinson's Disease via J48 Algorithm (Özet)**

Çetinkaya S., Demir A., Kodal Sevindir H.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.58

XV. **The Analytic Solution of Initial Boundary Value Problem Including Space-Time Fractional Diffusion Equation**

Çetinkaya S., Demir A.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.61

XVI. **Determination of Atrial Premature Beat by Using Adaboost Algorithm and Fractional Derivative**

Çetinkaya S., Demir A.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.60

XVII. **THE ANALYTIC SOLUTION OF INITIAL BOUNDARY VALUE PROBLEM INCLUDING SPACE-FRACTIONAL**

DIFFUSION EQUATION

ÇETİNKAYA S., DEMİR A., BAYRAK M. A.

International Marmara Sciences Congress (Spring 2019), Kocaeli, Turkey, 26 - 28 April 2019, pp.1453-1457

- XVIII. **Determination of Amyotrophic Lateral Sclerosis Disease Using K Nearest Neighborhood Algorithm**
Çetinkaya S., Demir A., Kodal Sevindir H.
International Marmara Science and Social Sciences Congress, Kocaeli, Turkey, 26 - 28 April 2019, pp.1470-1474
- XIX. **Heart Attack Prediction by Using Support Vector Machine**
Çetinkaya S., Demir A., Kodal Sevindir H.
International Marmara Science and Social Sciences Congress, Kocaeli, Turkey, 26 - 28 April 2019, pp.1579-1583
- XX. **Destek Vektör Makineleri ile Aritmi Sınıflandırılması**
Çetinkaya S., Demir A., Kodal Sevindir H.
International Marmara Science and Social Sciences Congress , Kocaeli, Turkey, 23 - 25 November 2018, pp.1629-1633
- XXI. **On The Existence And Uniqueness Of Solutions For A First And Second-Order Discrete Boundary Value Problem**
ERDEM A., DEMİR A.
5Th INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS (ICRAPAM 2018), 23 - 27 July 2018
- XXII. **On the Solution of Initial Boundary Value Problem for Space-Fractional Diffusion Equation**
DEMİR A., LÜLEÇİ G.
ICOMATH2018 - INTERNATIONAL CONFERENCE ON MATHEMATICS: AN ISTANBUL MEETING FOR WORLD MATHEMATICIANS, 3 - 06 July 2018
- XXIII. **On the Solutions of Linear Fractional Differential Equations of Order $2q$, Including Small Delay Where $0 < q < 1$**
DEMİR A., KARAPINAR K.
ICOMATH2018 - INTERNATIONAL CONFERENCE ON MATHEMATICS: AN ISTANBUL MEETING FOR WORLD MATHEMATICIANS, 3 - 06 July 2018
- XXIV. **BAYRAK A new iterative algorithm for the time-fractional Fisher equation including small delay**
DEMİR A., BAYRAK M. A., BAYRAK M.
ICOMAA2018, International Conference on Mathematical Advances and Applications, May 11-13, 2018, 11 - 13 May 2018
- XXV. **A new iterative algorithm on the time-fractional Fisher equation including small delay**
DEMİR A., BAYRAK M. A., BAYRAK M.
International Conference on Mathematical Advances and Applications, 11 - 13 May 2018
- XXVI. **A novel iterative algorithm on the time-fractional Fisher equation with small delay**
BAYRAK M. A., DEMİR A., BAYRAK M.
International Conference on Mathematical Advances and Applications, 11 - 13 May 2018
- XXVII. **A new iterative algorithm for the time-fractional Fisher equation including small delay**
DEMİR A., BAYRAK M. A., BAYRAK M.
International Conference on Mathematical Advances and Applications (ICOMAA2018), İstanbul, Turkey, 11 - 13 May 2018
- XXVIII. **A new approach for the solution of space-time fractional order heat-like partial differential equations by Residual power series method**
DEMİR A., BAYRAK M. A.
International conference on mathematics and Engineering, 10 - 12 May 2017
- XXIX. **Determination of an unknown time dependent coefficient for the time fractional heat equation**
DEMİR A., BAYRAK M. A.
International conference on Mathematics and Engineering, 10 - 12 May 2017
- XXX. **A new approach for space-time fractional partial differential equations by Residual power series method**
BAYRAK M. A., DEMİR A.

- International Conference on mathematics and Engineering, 10 - 12 May 2017
- XXXI. **Determination of an unknown spacewise dependent coefficient for the timefractional heat equation**
BAYRAK M. A., DEMİR A.
International conference on mathematics and Engineering, 10 - 12 May 2017
- XXXII. **On the Stability of a Neural Field Model**
ÖZGÜR B., DEMİR A.
International Conference on Recent Advances in Pure and Applied Mathematics, 19 - 23 May 2016
- XXXIII. **The Stability Analysis of a Delay Differential Equation with State Dependent Delay**
erman s., DEMİR A.
International Conference on Recent Advances in Pure and Applied Mathematics, 19 - 23 May 2016
- XXXIV. **Local Stability Analysis of Strogatz Model with Two Delays**
ERMAN S., DEMİR A.
International Congress in Honour of Prof Ravi P. Agarwal, 23 - 26 June 2014
- XXXV. **On the Existence and Uniqueness of Solutions for Discrete Boundary Value Problems**
ERDEM A., DEMİR A.
Nonlinear Phenomena in Complex System, II International Seminar Nonlinear Phenomenology Advances, 1 - 05 October 2013
- XXXVI. **Inverse Problem of the Fractional Heat-like Partial Differential Equations**
DEMİR A., ÖZKUM G., ERMAN S., ÖZGÜR B., BOZTEPE E.
International Congress in Honour of Professor H. M. Srivastava, 23 - 26 August 2012
- XXXVII. **Analysis of New Homotopy Perturbation Method for Linear and Nonlinear Problems**
DEMİR A., ERMAN S., ÖZGÜR B., BOZTEPE E.
International Congress in Honour of Professor H. M. Srivastava, 23 - 26 August 2012
- XXXVIII. **Analysis of Fractional Partial Differential Equations by Taylor Series Expansion**
DEMİR A., ERMAN S., ÖZGÜR B., BOZTEPE E.
International Congress in Honour of Professor H. M. Srivastava, 23 - 26 August 2012
- XXXIX. **Inverse Problem of Determining Source Function in a Linear Parabolic Equation by Adomian Decomposition Method**
DEMİR A., BOZTEPE E., ÖZGÜR B., ERMAN S.
International Congress in Honour of Professor H. M. Srivastava, 23 - 26 August 2012
- XL. **Analysis of a Semigroup approach in the inverse problem of Identifying an Unknown Parameter**
ÖZBİLGE KAHVECİ E., DEMİR A.
International Congress in Honour of Prof HM Srivastava on his 70th Birth Anniversary, 18 - 21 August 2010
- XLI. **Identification of an Unknown Coefficient Approximately**
ÖZBİLGE E., DEMİR A.
International Conference on Numerical Analysis and Applied Mathematics, Rethimnon, Greece, 18 - 22 September 2009, vol.1168, pp.81-82
- XLII. **Identification of th Unknown Coefficient in a Linear Parabolic Equation by Semigroup Approach with Mixed Output Data**
ÖZBİLGE KAHVECİ E., DEMİR A.
International Conference on Mathematical Analysis, Differential Equations and Their Applications, 12 - 15 September 2008
- XLIII. **Determination of the Unknown Boundary Condition in a Quasi-Linear Parabolic Equation**
ÖZBİLGE KAHVECİ E., DEMİR A.
The 20th International Congress of Jangjeon Mathematical Society, 21 - 23 August 2008
- XLIV. **Verification of the Unknown Diffusion Coefficient by Semigroup Method**
DEMİR A., ÖZBİLGE KAHVECİ E.
The 20th International Congress of Jangjeon Mathematical Society, 21 August 2008 - 23 August 2003

Supported Projects

DEMİR A., Project Supported by Higher Education Institutions, BİR DEN FAZLA DURUM DEĞİŞKENİNE BAĞLI GEÇME TERİMİ İÇEREN, 2014 - 2015

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